PHILIPS

Sensors

EasyAir

SNS200



Datasheet

EasyAir SNS200

The Philips EasyAir SNS200 is the ideal solution for per-luminaire control of new light luminaires. It combines occupancy sensing, daylight harvesting and task tuning in a single, compact package for easy OEM luminaire assembly. EasyAir SNS200 operates with the established Xitanium SR driver standard to make a simple two-wire connection between sensor and driver, thus eliminating the need for multiple components and auxiliary devices. The result is a cost effective and easy-to-design-in solution ideal for energy-savings. An intuitive app makes configuration and commissioning during and after installation fast and easy using Philips Field Apps.

Features

- Occupancy sensing, daylight harvesting and task tuning in one device
- Compact size, 2-wire connection
- Operates with Philips Xitanium SR drivers and qualified wireless switches
- Preset with most common sensor parameters
- Configuration of sensor parameters– if desired – using NFC or IR via intuitive Android-based Philips Field Apps
- Simple grouping of luminaires to a wireless switch with Philips Field Apps

Benefits

- Combines functionality to reduce need for multiple components
- Fits into existing and new-design luminaires
- Quick task tuning in the field to optimize light and power levels
- Enables auto-off/manual-on application
- Cost-effective solution for energy-savings
- 5-year limited system warranty with Philips Xitanium LED drivers
- Configuration and commissioning from the floor

Applications

- Conference rooms
- Individual offices
- Open offices
- Classrooms
- Storage and break areas
- Restrooms
- Lobbies
- Stairways

January 2019

Ordering Information

Commercial product name	Colour	Description	EOC	12NC	Carton Quantity
EasyAir SNS200/w	White	Office Sensor Advanced Grouping	8718696 698945 00	9290 007 66803	50 pcs
EasyAir SNS200/g	Grey	Office Sensor Advanced Grouping	8718696 712412 00	9290 005 60703	50 pcs
EasyAir SNS200/b	Black	Office Sensor Advanced Grouping	871869959684200	9290 016 51206	50 pcs

Product Data

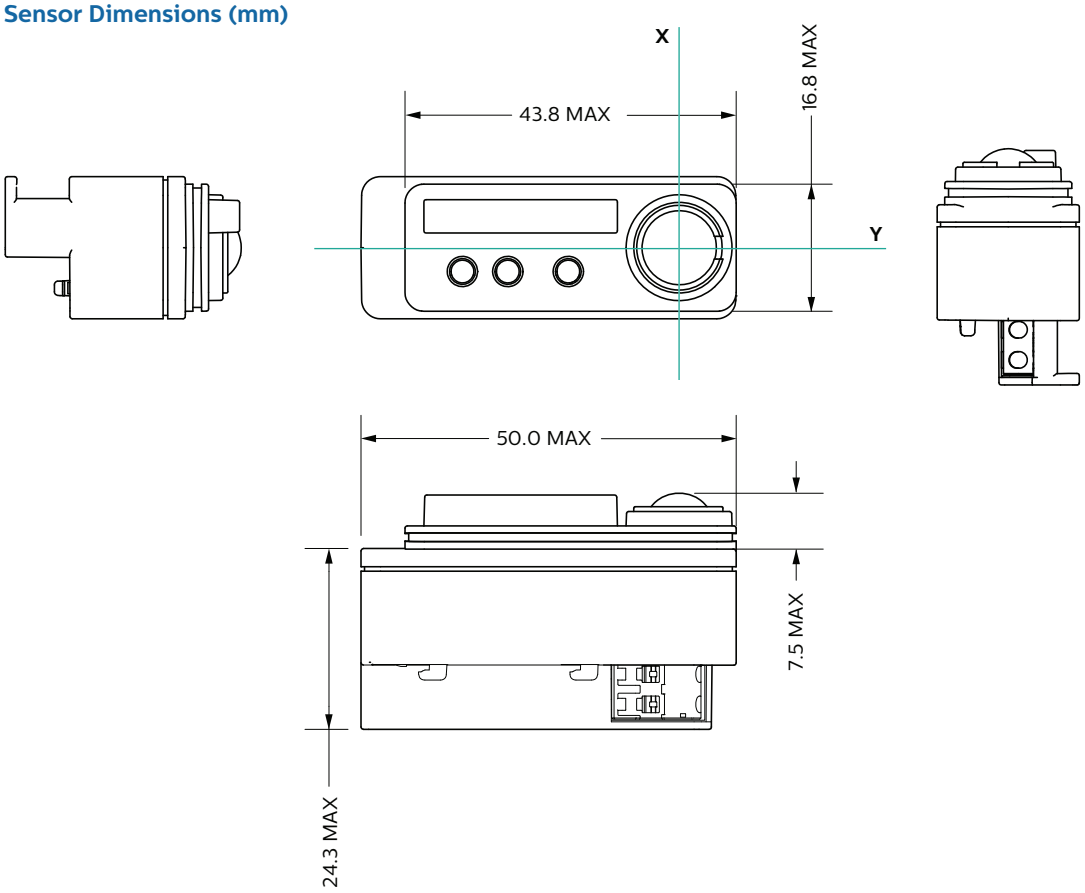
All specifications are typical and at 25 °C Tcase unless otherwise specified.

Physical Information	
Overall Dimensions	50 mm x 19.0 mm x 31.5 mm
Housing (Luminaire Hole)	44 mm x 17 mm (l x w)
Net Weight per Piece	17 gr
Volume required Inside Luminaire (LxWxH)	50 mm x 19 mm x 24 mm
Color	White and Grey
Connectors	(2) Lite-Trap connectors
Input wire cross-section (solid conductor wire)	0.25 - 0.75 mm^2
	18 - 24 AWG
Input wire cross-section (stranded wire)	0.3 - 0.5 mm^2
	20 - 22 AWG
Electrical Information	
Input Voltage	Powered by SR driver low-voltage interface
Current Consumption	13 mA
Nominal Power Consumption	200 mW
Standby Power	< 1 W on luminaire level, including driver standby power
Occupancy Sensing	
Type	Passive infrared (PIR)
Occupancy Based Control	Default enabled
Occupancy Mode	Auto-on/off, Manual-on/off, Manual-on/auto-off; Red LED indicates “on”
Group Occupancy Sharing	Enabled/disabled
Group light behaviour	Background light level, Field task level
Eco-On Level	5 - 100%
Hold Time	0.5 - 60 minutes
Viewing Angle	X = 72°, Y = 86° (See detection pattern)
Background Light Level	0-100%
Prolong Time	0 minutes - infinity
Grace Fading	0-25 sec
Response Time/Fading to Switch On/Off	0.7 sec
Daylight Sensing	
Daylight based control	Default enabled
Auto-calibration	Upon power-up
Daylight dependent switching	Default disabled
Daylight dependent override	Default disabled
Viewing Angle	40° (half value sensitivity); 2% cut-off point at 75°
Task Tuning	
Field Task Level	0-100%
Environment & Approbation	
Operating Ambient Temperature Range	0 °C to 55 °C
Operating Humidity	0 – 95% non condensing
Storage Temperature	-25 °C to 85 °C
Storage Humidity	0-95% non condensing
Ingress Protection	IP20
Max Case Temperature (Tcase)	55 °C
Agency Approbations	CE, ENEC, RTTE, EMC
Warranty	5 years warranty for released Philips system combination (sensor and compatible driver). 3 years warranty for sensor only.
Digital Interface	Xitanium SR
Other	
Status Indicators	Red, Yellow. Yellow LED on: Vacancy & Sensor is functional; Red LED on: Motion is detected
Energy reporting	Calculated from last “power on”: % On, Energy Consumed (Whr), System on time (hrs), Avg power consumed (w-hr), Lamp on time (hrs)
No. Drivers per Sensor	4 max
Max Distance Switch-to-First-Luminaire	10 m line-of-sight
Max Distance Luminaire-to-Luminaire	12 m line-of-sight
No. Switches per Group	10 max
Field Configuration	via NFC or IR, parameters set via Philips Field Apps

Compatible LED Drivers

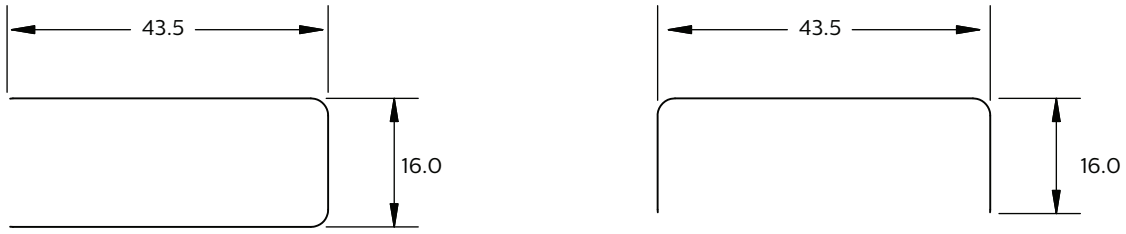
Logistic code 12NC	Description
9290 015 05006	Xitanium 75W 0.7-2.0A 54V SR 230V
9290 015 07706	Xi SR 75W 0.2-0.7A SNEMP 230V S240 sXt
9290 015 07806	Xi SR 75W 0.3-1.05A SNEMP 230V S240 sXt
9290 015 07506	Xi SR 150W 0.2-0.7A SNEMP 230V S240 sXt
9290 015 07606	Xi SR 150W 0.3-1.05A SNEMP 230V S240 sXt
9290 015 40806	Xitanium 100W 0.15-0.5A 300V SR 230V iXt
9290 015 40906	Xitanium 150W 0.2-0.7A 300V SR 230V iXt
9290 015 46406	Xitanium SR Bridge built-in
9290 015 46506	Xitanium SR Bridge independent
9290 015 16306	Xitanium 36W 0.3-1A 54V SR 230V

Sensor Dimensions (mm)

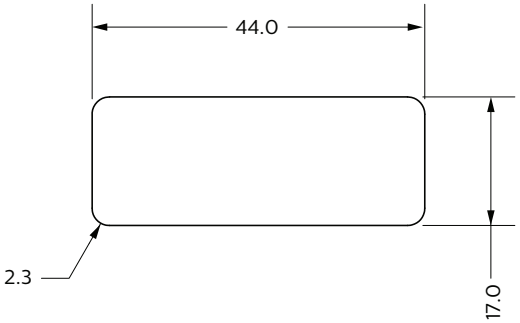


Mounting Dimensions (mm)

Mounting in U-shaped slot in sheet metal (max thickness 1 mm), tolerance +0.2 mm/-0.0 mm

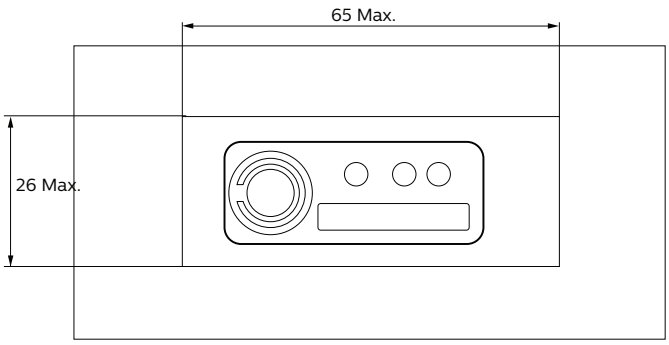


Mounting in cut-out in sheet matal (thickness 0.7 mm to 1.2 mm), tolerance +/-0.2 mm

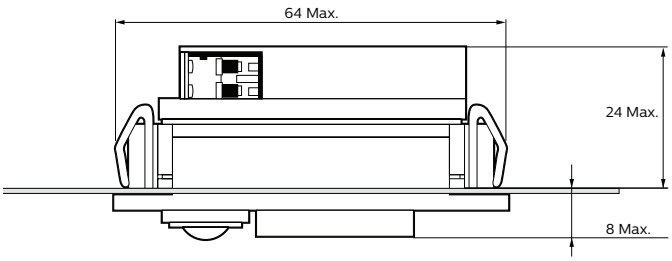


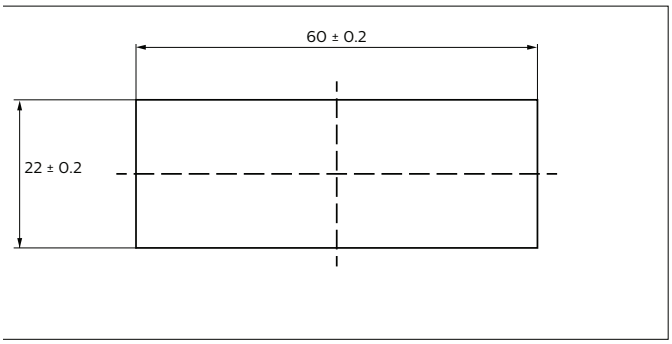
Mounting in a bracket (SMB-50)

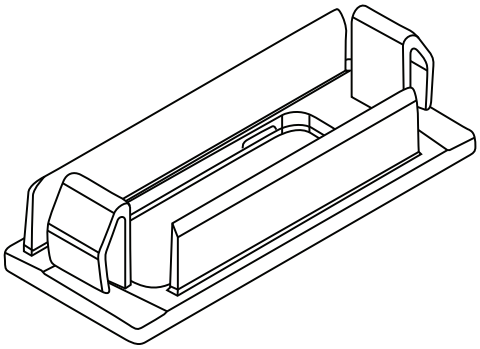
Accessories	Colour	12NC	
EasyAir SMB-50/w	White	929001540206	To be phased out
EasyAir SMB-50/g	Grey	929001540306	To be phased out
SMB-50/w	White	929002813706	Available now
SMB-50/b	Black	929002137306	Available now

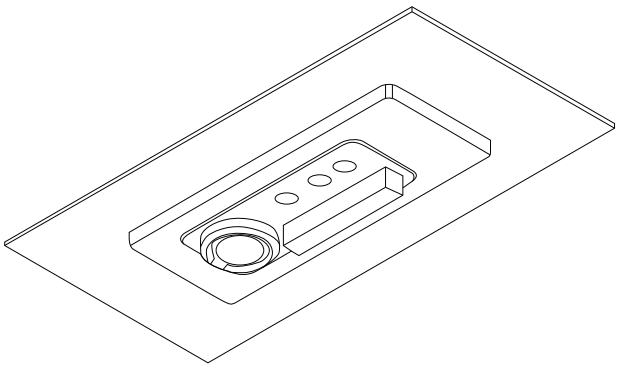


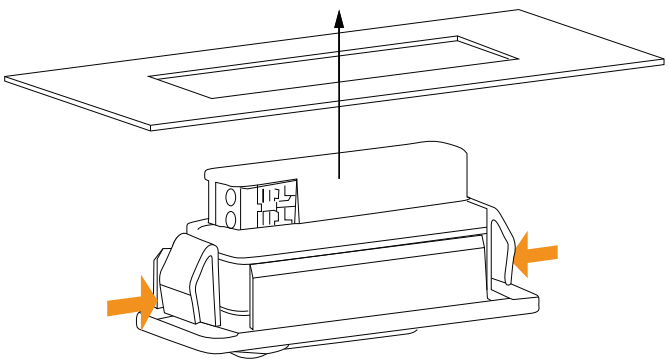
The EasyAir SNS200 can be mounted in a bracket (SMB-50). Refer the figures for details on mounting and design-in into luminaire. All dimensions are in mm.









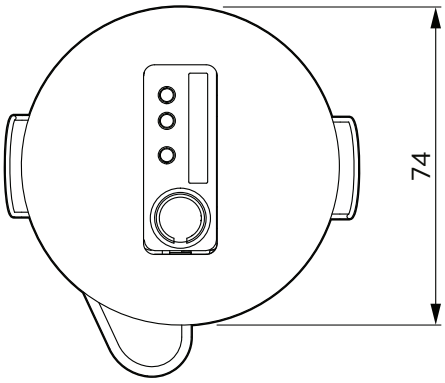


Press springs inwards on both sides before the bracket can slide-in the luminaire hole.

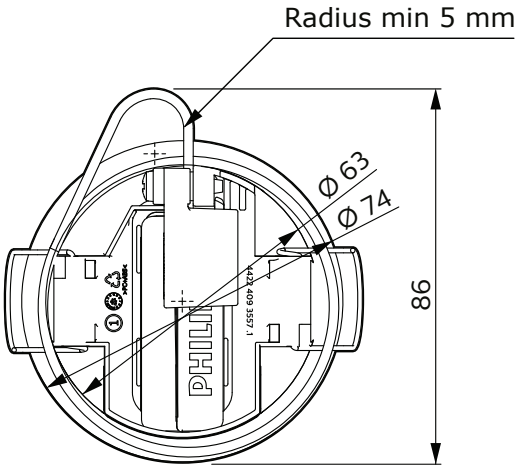
Installing EasyAir SNS200 with ceiling mount bracket (SNS200CMP)

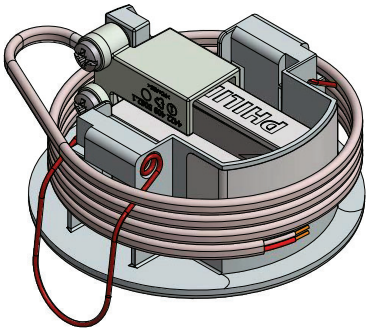
The ceiling mount SNS200CMP bracket is premounted with an EasyAir SNS200 along with the cable. For cut-out in the ceiling and mounting, refer the figures below. All dimensions are in mm.

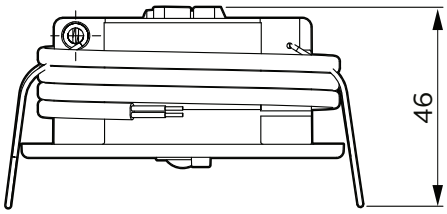
Product	Colour	12NC
EasyAir SNS200CMP	White	9290 007 90206



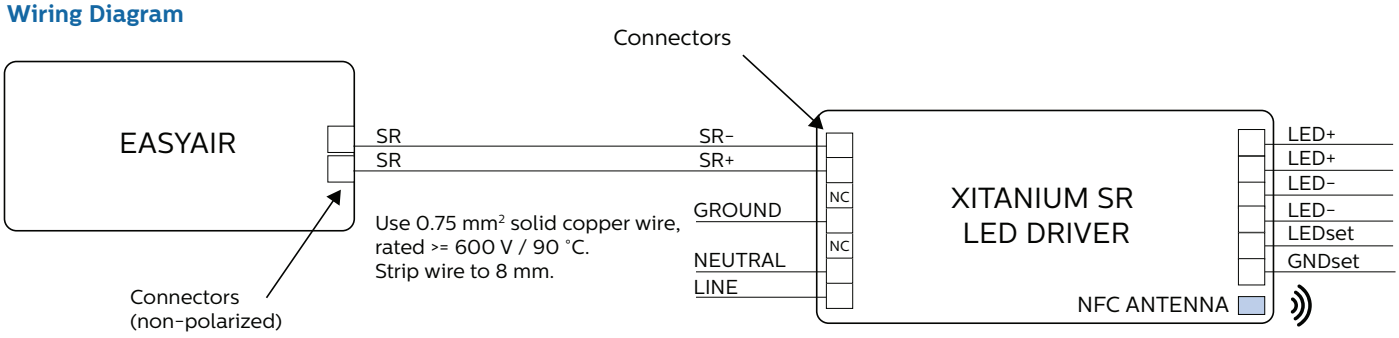


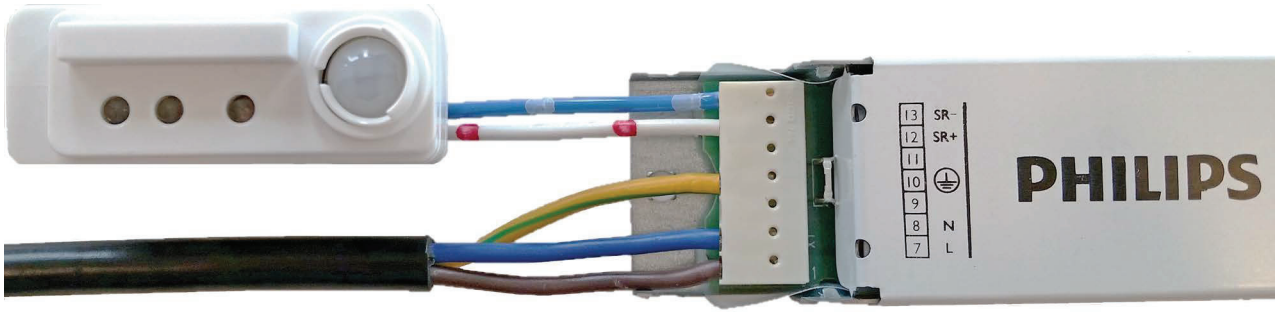






Wiring Diagram





EasyAir SNS200

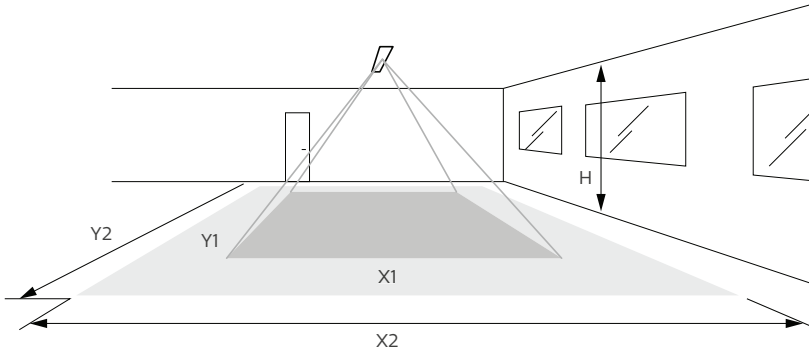
Occupancy Sensing

The detection area for the movement sensor can be roughly divided into two parts:

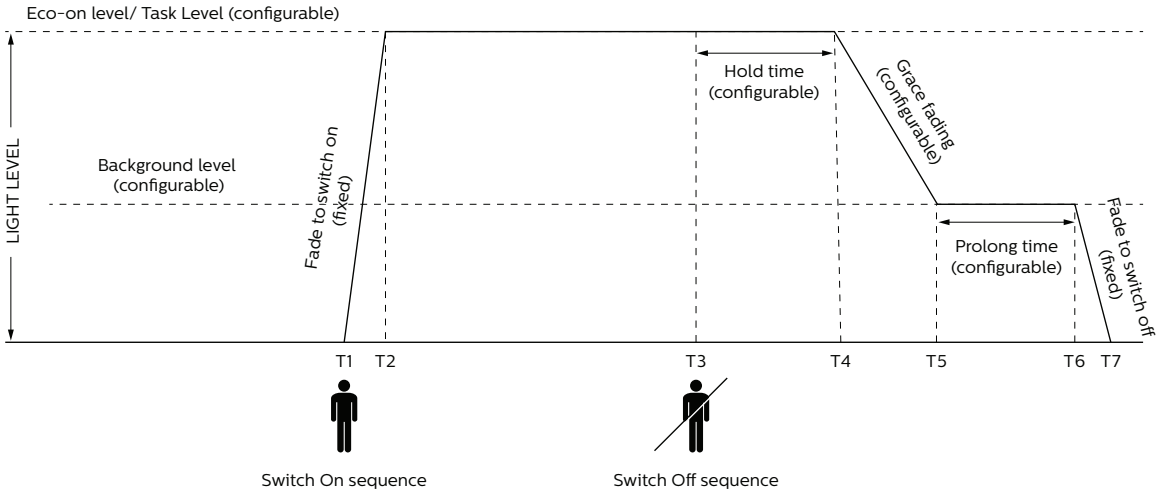
- Minor movement (person moving ≤ 0.9 m/s).
- Major movement (person moving ≥ 0.9 m/s)..

Height	Minor Movement		Major Movement	
h	Y1	X1	Y2	X2
2.4 m	2.9 m	2.7 m	4.5 m	2.9 m
3 m	3.6 m	3.4 m	5.4 m	3.6 m

Note: Longer dimension of detection area (Y1, Y2) is parallel to longer dimension of EasyAir SNS200.



Full-On Sequence (Default)
Eco-On Level = Task Level



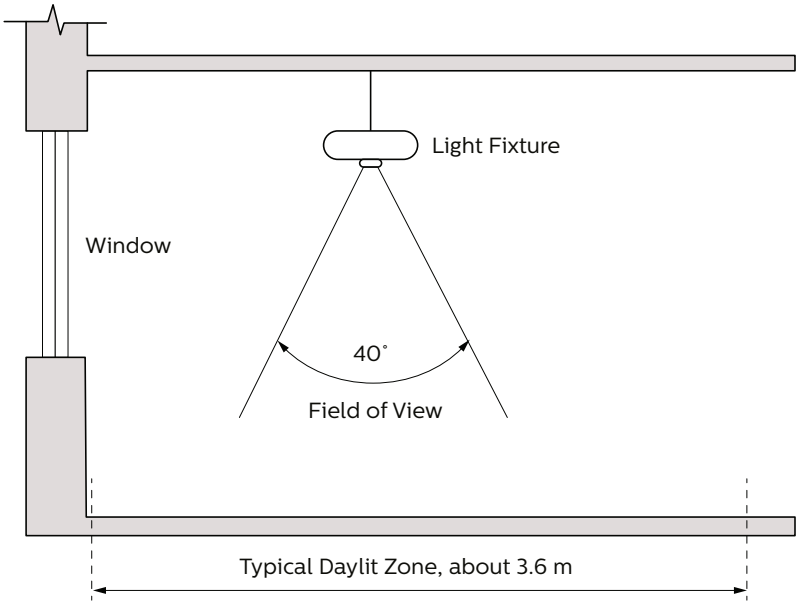
Daylight Sensor

The light sensor measures the total amount of light in a circular field of ≈ 80% of the PIR detection area. The following aspects should be observed during installation:

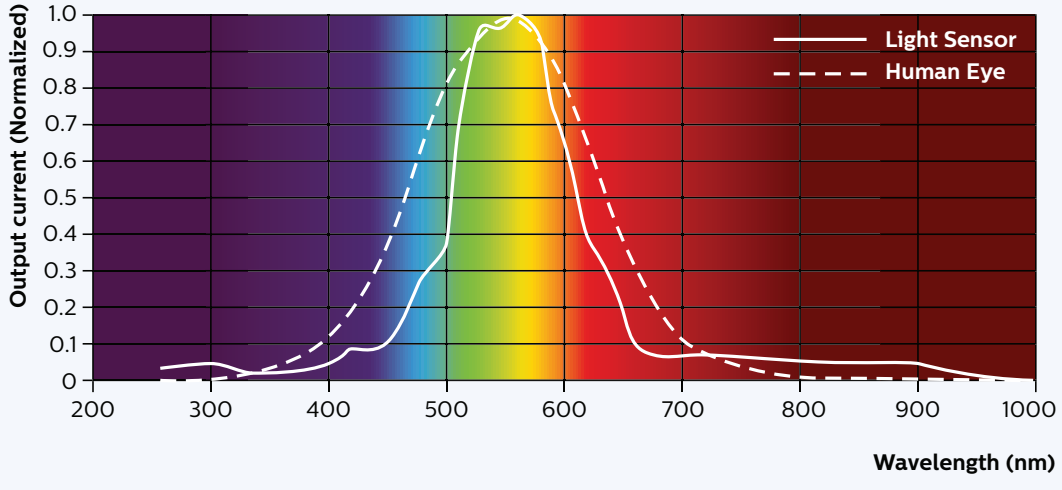
- Minimum distance from the window ≥ 0.6 m.
- Prevent light reflections from outside entering the sensor (for example sunlight reflection on a car bonnet) as this will lead to incorrect light regulation.

As a guideline the formula 0.72 x H can be used to calculate the minimum distance between the window and sensor whereby H is the height from the bottom of the window to the ceiling.

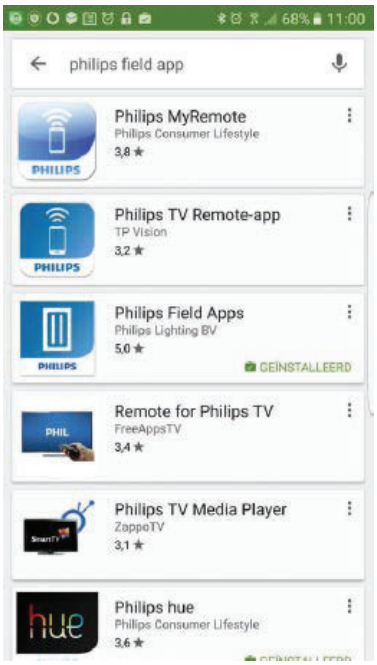
Photosensor Spatial Response

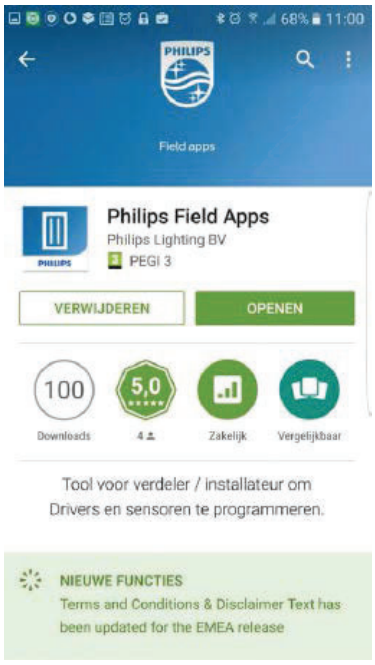


Photosensor Spectral Response



EasyAir SNS200 Configuration App









EasyAir SNS200 parameters can be configured via
Philips Field Apps. Two versions are available:

1. EasyAir SNS200 NFC – This app allows configuring EasyAir SNS200 parameters only, when you can physically access the sensor with a smartphone.
2. EasyAir SNS200 IR – This app allows grouping of luminaires and adding switches along with easy configuration of EasyAir SNS200 parameters. This can be done via the IR feature of the app using applicable phones from floor level.

You must first register for the app to receive a username and password, then download Philips Field Apps from the Google Play Store. For more information, please visit our website: http://www.lighting.philips.co.uk/oem-emea/products/easy-to-integrate-wireless-sensors.html for details including recommended Android phones and user manuals.

Default Factory Settings

Occupancy based control	Auto-on, Enabled
Daylight Based Control	Auto-on, Enabled
Daylight dependent switching	Default disabled
Daylight dependent override	Default disabled
LED Indicator	Enabled
Occupancy Mode	Auto-on/off
Group Occupancy Sharing	Enabled
Group Light Behaviour	Background level
Field Task Tuning	100%
Eco-On Level	100%
Background Light Level	20%
Hold Time	15 minutes
Prolong Time	15 minutes
Grace Fading	10 seconds
Fade to Switch On	0.7 seconds
Fade to Switch Off	0.7 seconds

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